October-07-13		18110		*1()8	311()*							Page 1
Item ID: Revision ID: Item Name:	D2175-2 Angle RH	<u></u>		Accept	*N900	<u>040</u>	100)*	Setup	Start Stop	1 4	S1* S2*
Start Date: Required Date:	10/18/13 10/18/13	Start Qty: 2.00 Req'd Qty: 2.00	*9* *7*	¥15+	Cust Item I Customer:	ID:						
Reference: Approvals:	Process Pl	an: MLゴ	Date: 13-10-0	7 Tooling:	D i	ate:			Run	Start	*N	R1*
						ate:				Stop	*N	R2*
Sequence ID/ Work Center II	 D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accep Qty	t Rej Qty		Reject Number	Insp. Stamp
Draw Nbr	Re	vision Nbr										
D2175	Re	v E								_		
100		FLOW WATER JET		0.00				15	F	6		A
Waterjet FLOW CNC Waterj	et	· · · · · · · · · · · · · · · · · · ·	Dwg D2175	0.00					<u>-</u> <u>-</u>	6		Ac 13.11.18
		Dwg Rev: Prog Rev:									•	
		2-Deburr if	necessary									
110		QC2- Inspect parts off m	nachine FAI/FAIB	0.00								1
QC		Memo		0.00				15		O		12 119

Quality Control

									DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-O	ONFOR	MANCE / UP	DATE	QA Closed:	Date:	
					DISPOSITION			AGAINST DE			
Work Orde	r:				Rework	ı I	Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	lo				Scrap		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
NCR N	lo				Use-as-is Work Order Update	Rec/Sto	re/Packaging Supplier	Other			
Root				Descri	ption of work order update	Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling						1					
Operator										1	
Material			·							•	
Setup											
Other											
Process											
Supplier											
Training											
Unapproved [*]											
·					F	AULT CATE	GORY				
Landi	ng Gear				General	_			-		-
	Bendin	g			Bend	Grain			Ovalized		Pressure/Forced
	Centre	Not Conce	ntric to	o/s	BOM/Route	Hardwa	ire		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	Inspect	ion Incomplete		Part Incorre	ct	Weld
	Crushe	d/Crimped			Burrs	Instruct	tions Incomplete,	/Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination	Mainte	enance		Part Moved		
	Heat Ti	eat			Countersink	Mislabe	eled		Positioned \	V rong	_
	Inspect	ion Strip ir	ı Tube		Cut Too Short	Misrea	d		Power Loss/	'Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

DAS

30

9-89

0.00

0.00

140

140

Brake NC

Brake NC

NC BRAKE

Memo

Form as per Dwg D2175

									DQA:	Date: _	• •
NCR: Ye	s / No				WORK ORDER NON-C	ONFORM	MANCE / UPI		QA Closed:	Date:	·
Work Order:	:				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part No	D			· · · · · · · · · · · · · · · · · · ·	Rework Scrap Use-as-is Work Order Update	Thern	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Quality Other
Root				Descri	ption of work order update	Initial	Act	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data				-							
Equip/Tooling		<u></u>						•			
Operator		Ì			'						
Material											
Setup											
Other											
Process											
Supplier				•							

FAULT CATEGORY Landing Gear General Ovalized Pressure/Forced Bend Grain Bending BOM/Route Over/Under tolerance Temperature/Cure Centre Not Concentric to O/S Hardware Part Incorrect Cracks Broken/Damaged Inspection Incomplete Weld Part Lost/Missing Wrong Stock Pulled Crushed/Crimped Burrs Instructions Incomplete/Unclear Cuffs Maintenance Part Moved Contamination Heat Treat Countersink Mislabeled Positioned Wrong Other Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Drill Holes Ripples in Bend Offset Out of Calibration Torque Waves in Extrusion Drawing Finish Turning Sequence Out of Sequence Folio Wave/Twist in Tube Outside Dimensions

Training Unapproved

27 9-89

0.00

QC7-Inspect Chemical Conversion Coat

Memo

170

Quality Control

									DQA:	Date:			
NCR: Y	es / No				WORK ORDER NON-C	ONFO	RN	IANCE / UPDATE	QA Closed:	Date:			
Work Orde					DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part N					Scrap Machining Smal			Nachining Small Fab	Pro	Engineering Quality			
NCR N	NCR No				Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite			Rec/Store/Packaging Supplier		Other			
Root				Descri	ption of work order update	Initia	П	Action	Sign &				
Cause	Date	Step	Qty	(or Non-conformance	Chief E	ng	Description	Date	Verification	QC Inspector		
Doc/Data													
Equip/Tooling						Ì							
Operator							1						
Material											ļ		
Setup				İ									
Other													
Process													
Supplier		1											
Training													
Unapproved		<u> </u>	<u></u>										
					F.	AULT CA	TEG	GORY					
Landir	ng Gear				General	_			•	,	1		
]	Bending				Bend	Grai	in		Ovalized	<u></u>	Pressure/Forced		
	Centre N	lot Conce	ntric to	o/s	BOM/Route	Harc	dwar	re	Over/Under	tolerance	Temperature/Cure		
	Cracks				Broken/Damaged ⁻	Insp	ectio	on Incomplete	Part Incorre	ct	Weld		
{	Crushed	/Crimped		L	Burrs	Instr	ructi	ons Incomplete/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled		
	Cuffs				Contamination	Mai	nter	nance	Part Moved				
	Heat Tre	at			Countersink	Misl	abel	led	Positioned V	Vrong			

Misread

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

	Vork Order ID 108110 ctober-07-13 9:11:43 AM			*108	3110*							Page 4	
Revision ID:	D2175-2			Accept	*N90	0040	100)* 5	Setup S	start Stop		S1*	
Item Name: Start Date:	Angle RH 10/18/13	Start Qty: 2.00	*2*		Cust Iter	m ID·				жор	*N:	S2*	
Required Date:		Req'd Qty: 2.00	*2*		Custome								
Reference:								_		744			
Approvals:	Process Pla	n:	Date:	Tooling:		Date:		J		Start	*NI	R1*	
	QC:		Date:	SPC (Y/N):		Date:				Stop	*NI	R2*	
Sequence ID/ Work Center II)	Operation Description Identify as per dwg & Sto	ock Location:	Set Up/ Run Hours	Tool II	D Tool#	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp	_
180 Packaging		Мето		0.00				15x	- · <u>-</u>			26 9-89 13-11-a	ر ب
Packaging													
190		QC21- Final Inspection -	Work Order Release	0.00					13	1	, / _		1
190									17			~ F	

0.00

Memo

Quality Control

V13-11-21

									DQA:	Date:	
NCR: Y	es / N	0			WORK ORDER NON-C	ONFOR	MANCE / UP	DATE			.,
			······································						QA Closed:	Date:	
Work Orde	ır.				DISPOSITION			AGAINST DE	PARTMENT,	/PROCESS	
Part N					Rework Scrap		Skid-tube Crosstube Machining Small Fab		Water Je		Engineering Quality
NCR N	lo				Use-as-is Work Order Update	Ther	moforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root				Descri	ption of work order update	Initial	Act	ion	Sign &		
Cause	Dat	e Step	Qty		or Non-conformance	Chief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator											
Material										Į	
Setup											
Other											
Process ·		l									•
Supplier					•				<u> </u>		
Training		ĺ									
Unapproved				,							
				*****	F	AULT CATE	GORY				
Landii	ng Gear			·	General				7	·	7
	Bendi	_			Bend	Grain			Ovalized		Pressure/Forced
	Centr	e Not Conce	entric to	O/S	BOM/Route	Hardw	are	_	Over/Under	tolerance	Temperature/Cure
	Crack				Broken/Damaged	Inspec	tion Incomplete		Part Incorre	ct	Weld
	Crush	ed/Crimped	i i		Burrs	Instruc	tions Incomplete/U	Jnclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination	Maint	enance		Part Moved		
	Heat	Гreat			Countersink	Mislab	eled		Positioned V	Vrong	-
	Insne	rtion Strin i	n Tuhe	I	Cut Too Short	Misros	nd.		Power Loss	Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Work Order ID:

108110

Parent Item:

D2175-2

Parent Item Name:

Angle RH

Start Date: 10/18/13

Required Date: 10/18/13

Page 1

Start Qty: 2.00

Required Qty: 2.00

Comments:

IPP E04.06.09ReformatKJ/RF

IPP Rev:F 06-04-28 Manufactured on Water Jet JLM

IPP Rev:G As per Rev E 06-11-22 JLM

	IPP Rev:G As per	r Rev E 06-11-2	Z JLIVI										
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.063 2024-T3 .063 sheet		Purchased	No			100	sf	336.0789	0.4722	0.9941052		te_1	<u>3 ·)1·</u> ({
				Location		Loc Qty	<u>Lo</u>	c Code					
				MAT022		336.0789							
				119	916	0.2							
				121	197	21.34							
				123	096	11.4							
				123	654	11.64							
				123	701	16.1039							
				125	341	87.94							
				125	636	187.455			12:	5636 -	→ ′	7 43	

												DQA:	D	ate:	
NCR:	⁄es	/ No				WORK ORDER NON-	COI	NFORN	MANCE / UP	DATE	Q	A Closed:	 D.	ate:	
					!	DISPOSITION				AGAINST D					
Work Orde	er: _					1	7			_	_	·			
Part I	۷o. ِ					Rework Scrap Use-as-is		ļ	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing				Water Je d. Eng. Coor e/Packaging		Engineering Quality Other
NCR I	No.					Work Order Update	te Large Fab Composite						Supplie	-	
Root					Descri	ption of work order update		Initial	Ac	tion	Τ	Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Cł	nief Eng	Desc	ription		Date	Verification	on	QC Inspector
Doc/Data															,
Equip/Tooling				•											
Operator															
Material															
Setup											1				
Other															
Process															
Supplier															
Training															
Unapproved															
						!	FAUI	LT CATE	GORY						
Landi	ng (ear				General		_			_			_	
		Bending				Bend		Grain			၂၀	valized		L	Pressure/Forced
		Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		o	ver/Under	tolerance		Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on incomplete		Pa	art Incorrec	ct	L	Weld
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/	/Unclear	Pa	art Lost/Mi	ssing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance	· [P	art Moved			
		Heat Trea	at			Countersink		Mislabe	eled]P	ositioned V	Vrong		_
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	1		Π _P ,	ower Loss/	Surge		Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order:	108110
Description: Angle	Part Number:	D2175-1/-2
Inspection Dwg: D2175 Rev: E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X	First Article	Prototype
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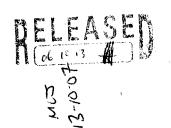
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
12.650	+/-0.010	12,650	_		T	JKM-06
R0.35	+/-0.030	,35	_		F G	
2.915	+/-0.010	2,915	_		ν,	
50°	+/-0.5°	5υ°	-		Dro Oco	JKM-04
0.300	+/-0.010	, 300	-		V	
1.050 Pitch	+/-0.010	1.050	_		V	
10.500	+/-0.010	,0.500	_		Т	
11.550	+/-0.010	11.550	,		Т	
0.550	+/-0.010	.550	-		V	
0.900	+/-0.010	.900	_		V	
0.063 thick	+/-0.010	,063	-		V	
Grain Direction	-N/A	1	_		Visual	
Ø0.128	+0.005/-0.001	.128	-		V	
Ø0.172	+0.005/-0.001	.171	_		V	
			DAS			

Measured by: Ae	Audited by:	9-89	Prototype Approval:	N/A
Date: 13.11.18	Date:	13 11/13	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	04.08.12	New Issue	KJ/JLM ,	1_
В	07.03.23	Dimensions revised per Dwg rev. E	KJ/JLM O	



	DESIG	RF	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
ı	CHECK	ED,	APPROVED	DRAWING NO. RE	V. E
	0	H	#	D2175 SHEET 1 0)F 1
1	DATE			TITLE SC	ALE
	06.0	9.25		ANGLE	1:3
	Α.		95.10.25	NEW ISSUE	
	В		96.01.18	CHANGED DIMENSION	
	С		00.09.11	UPDATE FINISH SPEC	
	D		04.06.03	RE-DESIGN	
	Ε		06.09.25	INC HOLE DIA TO Ø0.172, 4 HOLES	



2.915

0.821 (TYP.)

GRAIN

0.300

HOLES)

ø0.128 (19

o

0

0

0.900

0.550 —

11.550 (1.050 PITCH) 10.500 (1.050 PITCH)

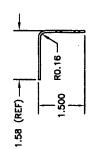
011801

\$0.172 (4 HOLES)

12.650

 \bigcirc

RO.35 (TYP)



MATERIAL: 2024-T3 (QQ-A-250/4) SHEET 0.063 THICK (REF. DART SPEC. M2024T3S.063) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED BREAK ALL SHARP EDGES 0.005 TO 0.010

ALL DIMENSIONS ARE IN INCHES

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